CLAIMS

1. An image analyzing device comprising:

storage section which stores image data obtained by processing reference chart data including a plurality of patterns for sampling each of characteristic quantities indicating characteristics of a defective image, by using a device targeted for checking;

a characteristic quantity sampling section which samples a characteristic quantity of each of the plurality of patterns expressed in the image data stored in the storage section;

a correlation table which associates each label for classifying defective image with at least one of the characteristic quantities corresponding to the label; and

a label specifying section which specifies the label for a pattern in which the characteristic quantity is sampled by the characteristic quantity sampling section from among the plurality of patterns expressed in the image data by referring to the correlation table.

2. An image analyzing device according to claim 1, wherein the reference chart data is a print image, and the image data is electronic data obtained by reading the print image by an image scanner targeted for checking.

3. An image analyzing device according to claim 1, wherein the reference chart data is electronic data, and the image data is electronic data obtained by further reading an image printed by a printer targeted

5   for checking by using the electronic data, by an image scanner.

4. An image analyzing device according to claim 1, wherein the characteristic quantity sampling section applies mutually different processing to the

10   mutually different patterns in order to sample mutually different characteristic quantities.

5. An image analyzing device according to claim 1, wherein, with respect to the reference chart data, a plurality of known image patterns are disposed

15   in a mesh manner, and the characteristic quantity sampling section uses processing suitable to sample characteristic quantities for each mesh.

6. An image analyzing device according to claim 1, further comprising:

20   a list storage section which stores a reference chart characteristic list having recorded therein characteristics including respective pattern configurations of mutually different reference chart data; and

25   a selecting section which selects optimal reference chart data from the list storage section according to the characteristic quantity sampled by the

characteristic quantity sampling section.

7. An image analyzing device according to claim 1, wherein the image analyzing device is provided in a personal computer.

8. An image analyzing device according to claim 1, further comprising:

an image scanner which reads a document image and provides image data corresponding to the document image, wherein the storage section stores read data obtained by reading an arbitrary sample using an image scanner;

a list storage section which stores a reference chart characteristic list having recorded therein characteristics including respective pattern configurations of mutually different reference chart data;

pattern analyzing section which analyzes characteristics including a pattern configuration of the read data stored by the storage section and adds characteristics including the analyzed pattern configuration to the reference chart characteristic list; and wherein

the arbitrary image sample and the read data are used as new reference chart data.

9. An image checking system comprising:

image analyzing section which analyzes the presence or absence of a defective image from image

data obtained by making an electronic data of printed image outputted from a device targeted for checking, and makes classification for each phenomenon which appears on the defective image;

5   a cause estimating section which narrows a candidate of causes of a defect according to the phenomenon analyzed by the image analyzing section and other information; and

a display section which displays the phenomenon

10   classified by the image analyzing section and the causes of the defect estimated by the cause estimating section.

10. An image checking system according to claim 9, wherein the image analyzing section comprises:

15   storage section for storing image data obtained by processing reference chart data including a plurality of patterns for sampling each of characteristic quantities indicating characteristics of a defective image, by using a device targeted for checking;

20   a characteristic quantity sampling section which samples a characteristic quantity of each of the plurality of patterns expressed in the image data stored in the storage section;

a correlation table which associates each label

25   for classifying defective image with at least one of the characteristic quantities corresponding to the label; and

a label specifying section which specifies the
label for a pattern in which the characteristic
quantity is sampled by the characteristic quantity
sampling section from among the plurality of patterns

5   expressed in the image data by referring to the
correlation table.

11. An image checking system according to claim 9,
wherein the other information is an internal parameter
of a device targeted for checking.

10   12. An image checking system according to claim 9,
wherein the other information is an output value of an
internal sensor of a device targeted for checking.

13. An image checking system according to claim 9,
wherein the other information is input information from

15   a operator.

14. An image checking system according to claim 9,
wherein the other information is information on past
checking results.

15. An image checking system according to claim 9,

20   further comprising a communication section which
transmits to the outside the phenomenon classified by
the image analyzing section and the causes of defect
estimated by the cause estimating section.

16. An image checking system according to claim 9,

25   further comprising:

a scanner section which reads a document image
and provides document image data corresponding to the

document image; and

a printer section which forms an image corresponding to the image data provided from the image scanner,

5   wherein the image data is the document image data provided from the scanner section.

17. An image checking system according to claim 9, further comprising:

a scanner section which reads a document image and 10   provides document image data corresponding to the document image; and

a printer section which forms an image corresponding to the image data provided from the image scanner,

15   wherein the image data is document image data obtained by further reading the image formed by the printer section based on known reference data produced as electronic data, by use of the scanner section.

18. An image checking system according to claim 9, 20   wherein the image checking system is provided in a personal computer.

19. An image checking system according to claim 9, wherein the image checking system is provided in a network controller connected to the device targeted for 25   checking via network.

20. An image checking system according to claim 9, wherein the image analyzing section is provided in a

network controller connected to the device targeted for

checking via network, and the cause estimating section

is provided in a computer system connected to the

network controller via communication network.

5 21. An image checking system according to claim 9,

wherein the image checking system is provided in a

personal computer connected to the device targeted for

checking via LAN.